

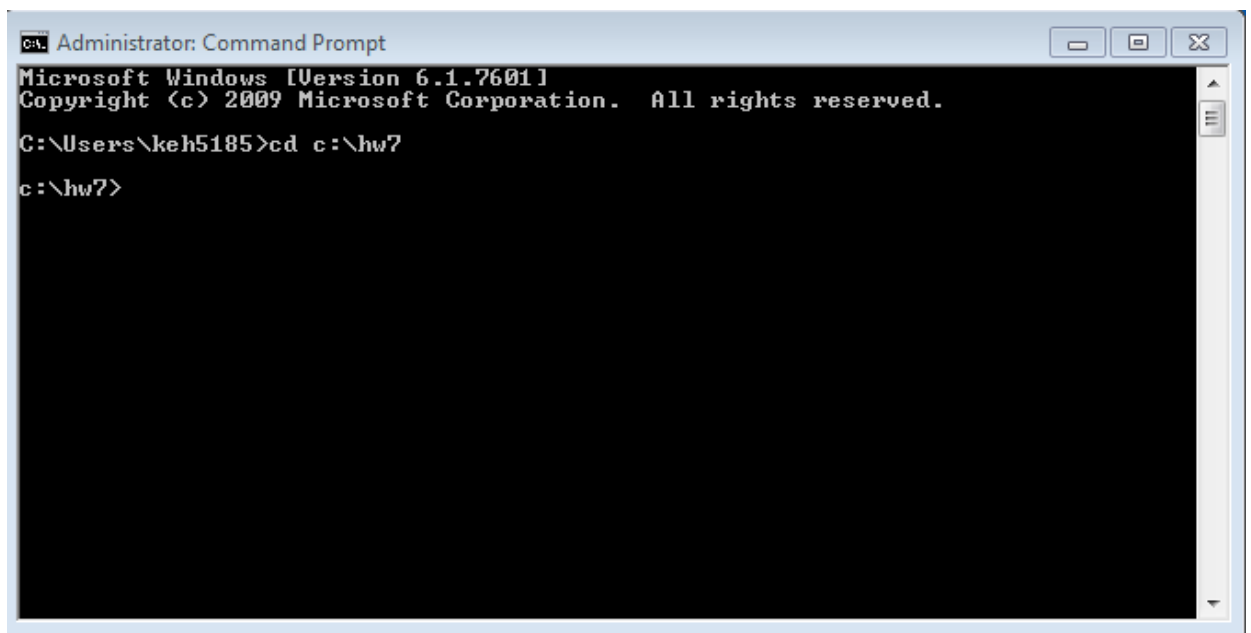
How to use the command prompt to create a Radiance Rendering

Quick Review

1. First create a folder on the c drive.
2. Second save your autocad drawing as an .dxf
3. Next open notepad, and create your material file. Be sure to save as all file types and save as .rad
4. Next open up the command prompt.

Steps

5. First change directory of the c-drive to the folder that you create on the c-drive.

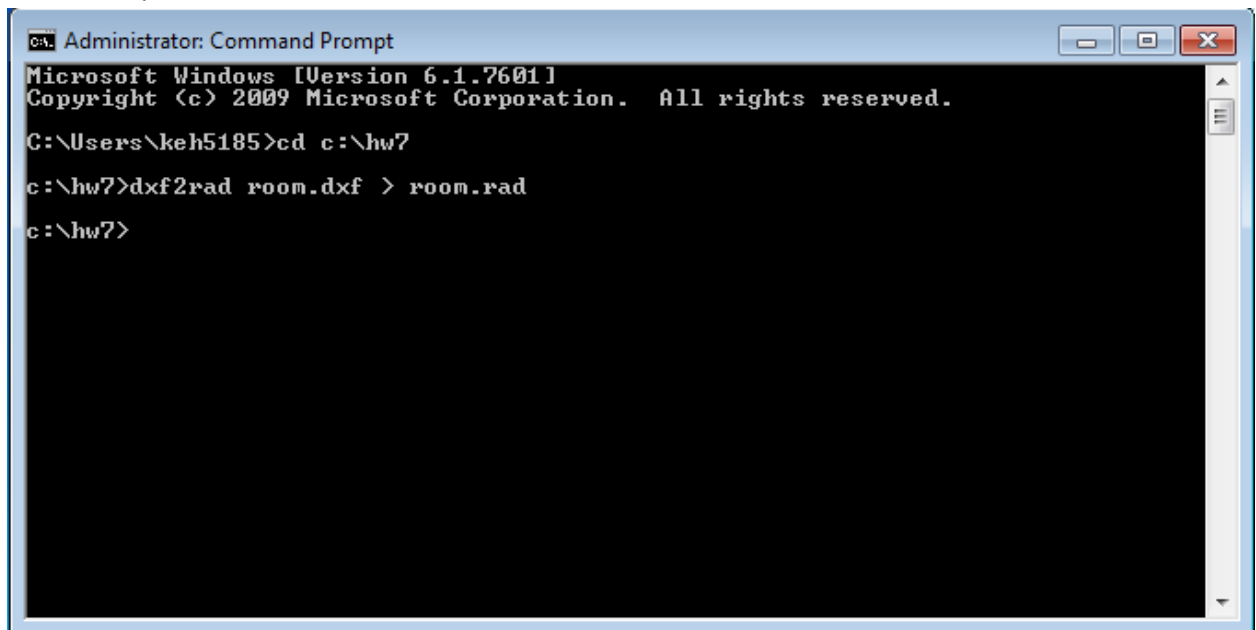


```
Administrator: Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\keh5185>cd c:\hw7
c:\hw7>
```

The image shows a screenshot of a Windows Command Prompt window titled "Administrator: Command Prompt". The window has a standard Windows interface with a title bar, minimize, maximize, and close buttons. The text inside the window shows the user navigating to a directory. The prompt starts at "C:\Users\keh5185>", then the user enters "cd c:\hw7", and the prompt changes to "c:\hw7>". The background of the command prompt is black with white text.

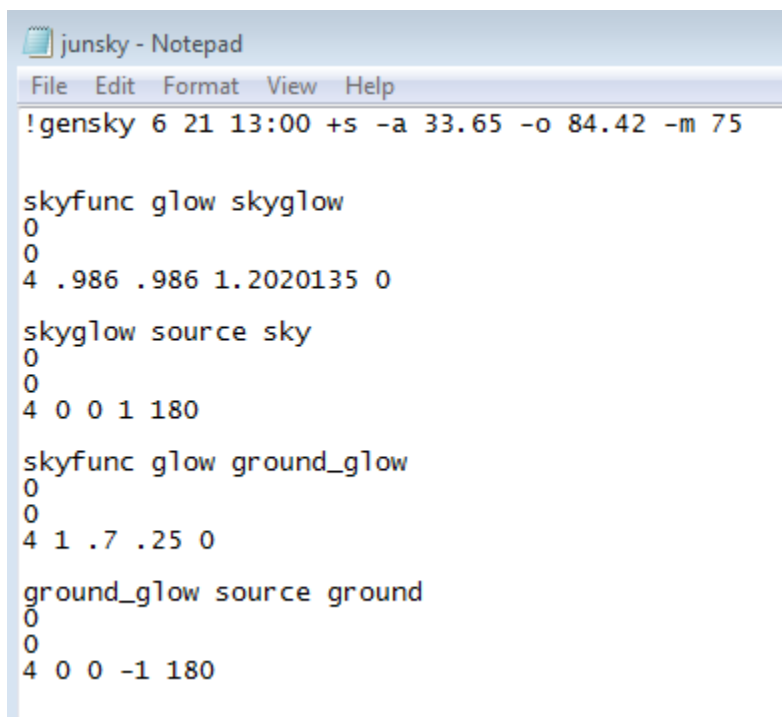
6. Next turn your .dxf file to .rad



```
Administrator: Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\keh5185>cd c:\hw7
c:\hw7>dxf2rad room.dxf > room.rad
c:\hw7>
```

7. Next create a sky file in notepad. Be sure to include the additional functions underneath the gensky. Be sure to save this as a .rad file.



```
junsy - Notepad
File Edit Format View Help
!gensky 6 21 13:00 +s -a 33.65 -o 84.42 -m 75

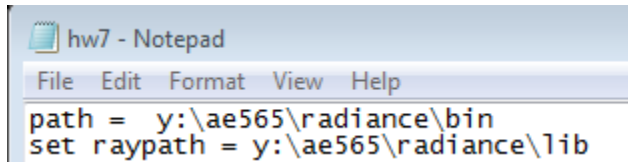
skyfunc glow skyglow
0
0
4 .986 .986 1.2020135 0

skyglow source sky
0
0
4 0 0 1 180

skyfunc glow ground_glow
0
0
4 1 .7 .25 0

ground_glow source ground
0
0
4 0 0 -1 180
```

8. Next, open up another notepad file, and save this as a .bat file.
9. Next set the path and raypath to use the proper radiance for the AE computers.



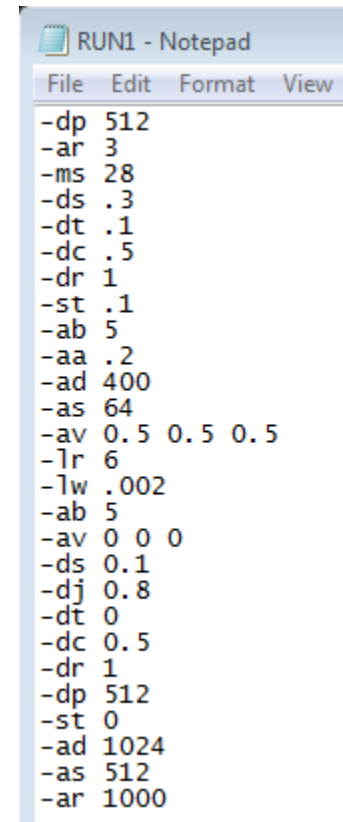
```
hw7 - Notepad
File Edit Format View Help
path = y:\ae565\radiance\bin
set raypath = y:\ae565\radiance\lib
```

10. Next use the oconv function to be notified of where errors occur and turn the .rad files into a .oct file. Here the sky, materials, and room geometry were turned into an .oct file.



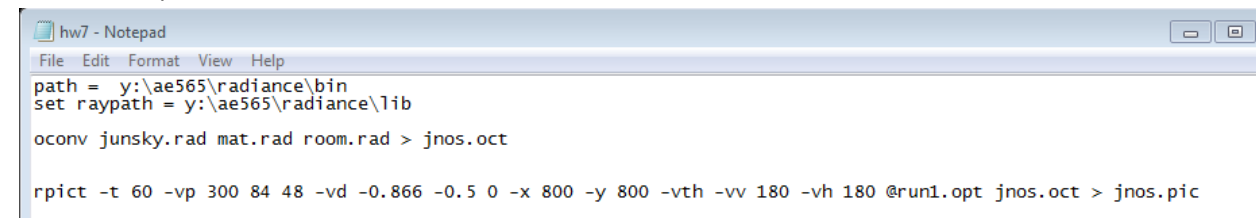
```
hw7 - Notepad
File Edit Format View Help
path = y:\ae565\radiance\bin
set raypath = y:\ae565\radiance\lib
oconv junsky.rad mat.rad room.rad > jnos.oct
```

11. Next, create a .opt file in notepad. This is the render quality. Save as .opt as done previously with .oct and .rad files.



```
RUN1 - Notepad
File Edit Format View
-dp 512
-ar 3
-ms 28
-ds .3
-dt .1
-dc .5
-dr 1
-st .1
-ab 5
-aa .2
-ad 400
-as 64
-av 0.5 0.5 0.5
-lr 6
-lw .002
-ab 5
-av 0 0 0
-ds 0.1
-dj 0.8
-dt 0
-dc 0.5
-dr 1
-dp 512
-st 0
-ad 1024
-as 512
-ar 1000
```

12. Use the rpict command to create an image based off the .oct and .opt rendering settings and turn into a .pic file



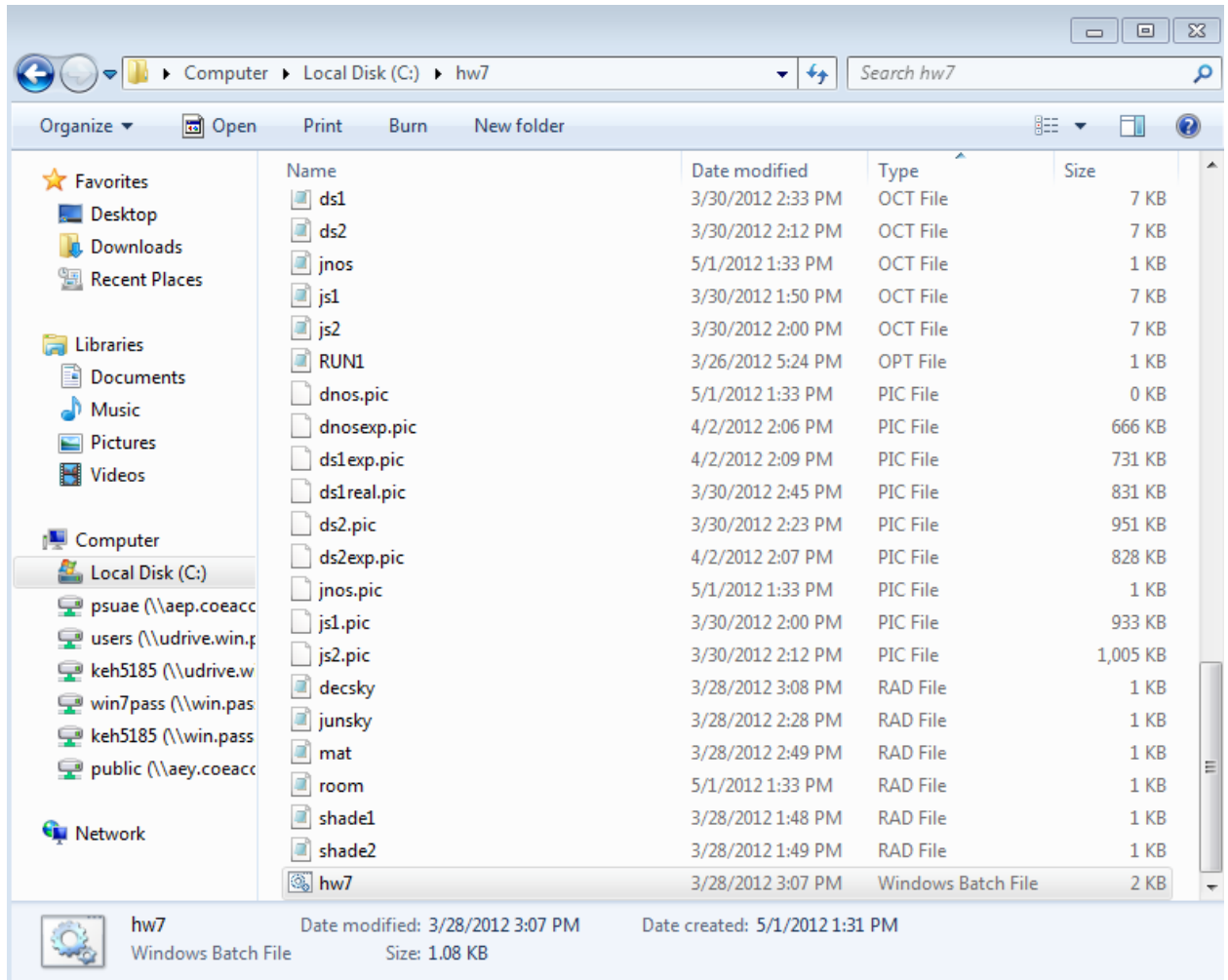
```
hw7 - Notepad
File Edit Format View Help
path = y:\ae565\radiance\bin
set raypath = y:\ae565\radiance\lib
oconv junsky.rad mat.rad room.rad > jnos.oct

rpict -t 60 -vp 300 84 48 -vd -0.866 -0.5 0 -x 800 -y 800 -vth -vv 180 -vh 180 @run1.opt jnos.oct > jnos.pic
```

-t 60 is time for rendering in seconds, -vp is viewing position, -vd is viewing direction in unit vector form. -x, -y is image size. -vv 180, -vh 180 creates a fisheye view.

13. Now that you have the file path to create the image, exit out of .bat file.

14. Now go to your c-drive and double click the batch file, and it should automatically operate.



15. Now wait for image .pic file, make sure it has a KB size much larger than 1.

16. Use winimage command in the command prompt and the picture will appear.

```
c:\hw7>winimage js1.pic
```

Note

Depending on the computer, version of radiance, you may have to reset the radreg file as well to get the winimage function working correctly.